

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A method of printing a solder paste onto a substrate surface, the method comprising:

(a) placing a stencil over the substrate surface;
(b) printing the solder paste ~~comprising a lubricant additive~~ through the stencil, wherein the solder paste comprises the lubricant additive is a lubricant additive comprising a branched chain fatty alcohol or fatty acid comprising 8 to 50 carbon atoms with a minimum of 4 carbon atoms being present in the shorter alkyl chain, or ester thereof , wherein the branched chain fatty acid has a branch point at a second carbon position;
and

(c) removing the stencil from the substrate surface.

Claims 2-7 (previously cancelled)

Claim 8 (cancelled).

Claim 9 (currently amended): ~~The method as set forth in claim 8~~ A method of printing a solder paste onto a substrate surface, the method comprising:

(a) placing a stencil over the substrate surface;
(b) printing the solder paste through the stencil, wherein the solder paste comprises a branched chain fatty alcohol or fatty acid lubricant additive comprising 8 to 50 carbon atoms with a minimum of 4 carbon atoms being present in the shorter alkyl chain, or ester thereof;

wherein the lubricant additive is selected from the group consisting of 2-butyl-1-octanol, 2-butyl-1-decanol,

2-hexyl-1-octanol, 2-hexyl-1-decanol, 2-hexyl-1-dodecanol,
2-octyl-1-dodecanol, 2-decyl-1-tetradecanol, 2-butyloctanoic
acid, 2-butyldecanoic acid, 2-hexyldecanoic acid,
2-hexyldodecanoic acid, 2-octyldodecanoic acid,
2-decyltetradecanoic acid and 2-hexadecyleicosanoic acid ; and
(c) removing the stencil from the substrate surface.

Claims 10 and 11 (cancelled)

Claim 12 (original): The method as set forth in claim 1
wherein the solder paste comprises about 75% to about 95% by
weight of a solder powder.

Claim 13 (original): The method as set forth in claim 1
wherein the solder powder comprises about 85% to about 90% by
weight of a solder paste.

Claims 14 and 15 (previously cancelled)

Claim 16 (original): The method as set forth in claim 12
wherein the solder powder is an alloy composition selected from
the group consisting of SnPb alloys, SnPbBi alloys, SnBi alloys,
SnPbAg alloys, SnAgCu alloys, SnAgCuBi alloys and SnZnBi alloys.

Claims 17 and 18 (previously cancelled)

Claim 19 (original): The method as set forth in claim 1
wherein the solder paste comprises about 0.1 to about 2% by
weight of the lubricant additive.

Claim 20 (previously amended): The method as set forth in claim 1 wherein the solder paste comprises a polar organic solvent that is a polyhydric alcohol selected from the group consisting of ethylene glycol, diethylene glycol, propylene glycol, sorbitol, pentaerythritol and derivatives thereof, tri(propylene glycol) butyl ether, butyl diglyme, dibutyl itaconate, di(propylene glycol) butyl ether, 2-ethyl hexyl diglycol, γ -butyrolactone, hexyl carbitol, N-methyl pyrrolidone, N-ethyl pyrrolidone, terpeneol and tetraglyme.

Claims 21-24 (previously cancelled)

Claim 25 (currently amended): A solder paste comprising a solder powder and a non-aqueous vehicle, wherein the non-aqueous vehicle comprises a lubricant additive which is a branched chain ~~fatty alcohol or~~ fatty acid comprising 8 to 50 carbon atoms with a minimum of 4 carbon atoms being present in the shorter alkyl chain, or an ester thereof , wherein the branched chain fatty acid has a branch point at a second carbon position.

Claim 26 (cancelled)

Claim 27 (currently amended): ~~The solder paste as set forth in claim 26~~ A solder paste comprising a solder powder and a non-aqueous vehicle, wherein the non-aqueous vehicle comprises a lubricant additive which is a branched chain fatty alcohol or fatty acid comprising 8 to 50 carbon atoms with a minimum of 4 carbon atoms being present in the shorter alkyl chain, or an ester thereof, wherein the lubricant additive is selected from the group consisting of 2-butyl-1-octanol, 2-butyl-1-decanol,

2-hexyl-1-octanol, 2-hexyl-1-decanol, 2-hexyl-1-dodecanol, 2-octyl-1-dodecanol, 2-decyl-1-tetradecanol, 2-butyloctanoic acid, 2-butyldecanoic acid, 2-hexyldecanoic acid, 2-hexyldodecanoic acid, 2-octyldodecanoic acid, 2-decyltetradeconoic acid and 2-hexadecyleicosanoic acid.

Claims 28 and 29 (cancelled)

Claim 30 (original): The solder paste as set forth in claim 25 wherein the solder powder comprises about 75% to about 95% by weight of a solder paste.

Claim 31 (original): The solder paste as set forth in claim 25 wherein the solder powder comprises about 85% to about 90% by weight of a solder paste.

Claims 32 and 33 (previously cancelled)

Claim 34 (original): The solder paste as set forth in claim 25 wherein the solder powder is an alloy composition selected from the group consisting of SnPb alloys, SnPbBi alloys, SnBi alloys, SnPbAg alloys, SnAgCu alloys, SnAgCuBi alloys and SnZnBi alloys.

Claims 35 and 36 (previously cancelled)

Claim 37 (original): The solder paste as set forth in claim 25 wherein the lubricant additive comprises about 0.1 to about 2% by weight of the solder paste.

Claim 38 (previously amended): The solder paste as set forth in claim 25 wherein the non-aqueous vehicle comprises a polar organic solvent that is polyhydric alcohol selected from the group consisting of ethylene glycol, diethylene glycol, propylene glycol, sorbitol, pentaerythritol and derivatives thereof, tri(propylene glycol) butyl ether, butyl diglyme, dibutyl itaconate, di(propylene glycol) butyl ether, 2-ethyl hexyl diglycol, γ -butyrolactone, hexyl carbitol, N-methyl pyrrolidone, N-ethyl pyrrolidone, terpeneol and tetraglyme.

Claims 39-42 (previously cancelled)